

WHAT IS CLAIMED IS:

1. A method of restricting distribution of an action and context description pair to avoid implicitly disclosing private context information due to fulfilling said action, comprising:

determining the number of context conditions that may satisfy said context description; and

checking if the number of context conditions that may satisfy said context description exceeds a limit.

2. The method of claim 1, further comprising rejecting said action and context description pair if said limit is not exceeded and otherwise accepting said action and context description pair.

3. The method of claim 1, wherein said step of determining the number of context conditions that may satisfy a context description includes determining the number of users whose context may satisfy the context description in the future.

4. The method of claim 1, wherein said step of determining the number of context conditions that may satisfy a context description includes determining the number of

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locations that may satisfy the context description in the future.

5. The method of claim 1, further comprising sending a privacy alert to the user if said limit is not exceeded and said action may implicitly disclose private context information if executed.

6. The method of claim 1, further comprising modifying said context description of said pair if said limit is not exceeded to expand the number of context conditions which satisfy the context description.

7. The method of claim 1, further comprising generating additional context descriptions for said action so that said pair is associated with a larger number of context conditions and thereby masking an originally requested action and context description pair.

8. The method of claim 1, wherein the action associated with said action and context description pair is selected from the group consisting of delivering content to a user, making a call, sending a short message, executing a program, executing a program, executing a script, starting a tracking activity, retrieving a web page, posting to a URL, downloading a

program, downloading a script, downloading parameters, and downloading arguments for a program.

9. The method of claim 1, wherein the action associated with said action and context description pair is performed with user consent.

10. The method of claim 1, wherein the action associated with said action and context description pair is performed without user consent.

11. The method of claim 1, wherein the action associated with said action and context description pair is performed with user knowledge.

12. The method of claim 1, wherein the action associated with said action and context description pair is performed without user knowledge.

13. The method of claim 1, wherein the context description associated with said action and context description pair includes a description of a condition characteristic selected from the group consisting of a location, geographical area, time, date, schedule, usage mode, mobile state, mobile status, signal conditions, processor load, memory availability, proximity to a location, speed, direction of travel, usage history, user profile, a status of

another user terminal, and a current context of another user terminal.

14. The method of claim 1, further comprising monitoring by a mobile station said mobile station's current context with respect to the context description associated with said action and context description pair and executing said action upon detecting that the current context of said mobile station satisfies said context description.

15. The method of claim 14, wherein said monitoring occurs when an event selected from the group consisting of periodically, upon detecting a current context change, and upon user initiated action, occurs.

16. The method of claim 1, further comprising sending said action and context description pair to a plurality of mobile stations.

17. The method of claim 1, wherein the context description associated with said action and context description pair is implemented in the form selected from the group consisting of a program, a script, and a parametric description.

18. A method of restricting distribution of an action and context description pair to avoid implicitly disclosing

private context information due to fulfilling said action,
comprising:

monitoring the generation of said action and context
description pair;

computing the broadness of said context description;

searching for context conditions which satisfy said
context description;

counting the number of context conditions that may
satisfy said context description; and

checking if the number of context conditions that may
satisfy said context description exceeds a limit;

19. The method of claim 18, further comprising modifying
said context description of said pair if said limit is not
exceeded to expand the number of context conditions which
satisfy the context description.

20. The method of claim 18, further comprising rejecting
said action and context description pair if said limit is not
exceeded and otherwise accepting said action and context
description pair.

21. The method of claim 18, further comprising
generating additional context descriptions for said action so
that said pair is associated with a larger number of context

conditions and thereby masking an originally requested action and context description pair.

22. The method of claim 18, wherein said step of determining the number of context conditions that may satisfy a context description includes determining the number of users whose context may satisfy the context description in the future.

23. The method of claim 18, wherein said step of determining the number of context conditions that may satisfy a context description includes determining the number of locations that may satisfy the context description in the future.

24. The method of claim 18, further comprising sending a privacy alert to the user if said limit is not exceeded and said action may implicitly disclose private context information if executed.

25. The method of claim 18, wherein the action associated with said action and context description pair is selected from the group consisting of delivering content to a user, making a call, sending a short message, executing a program, executing a program, executing a script, starting a tracking activity, retrieving a web page, posting to a URL,

another user terminal, and a current context of another user terminal.

31. The method of claim 18, further comprising monitoring by a mobile station said mobile station's current context with respect to the context description associated with said action and context description pair and executing said action upon detecting that the current context of said mobile station satisfies said context description.

32. The method of claim 31, wherein said monitoring occurs when an event selected from the group consisting of periodically, upon detecting a current context change, and upon user initiated action, occurs.

33. The method of claim 18, further comprising sending said action and context description pair to a plurality of mobile stations.

34. The method of claim 18, wherein the context description associated with said action and context description pair is implemented in the form selected from the group consisting of a program, a script, and a parametric description.

35. The method of claim 18, wherein the action and context description pair is obtained from the wireless web.

36. The method of claim 18, wherein the action and context description pair is obtained from memory.

37. A mobile station for utilizing a plurality of action and context description pairs, in a wireless telecommunications network, comprising:

a memory which stores the plurality of action and context description pairs; and

a processor which determines when the context description portion of one of the plurality of action and context descriptor pairs is satisfied and subsequently performs the corresponding action;

wherein the plurality of action and context description pairs are generated by generating means for determining the number of context conditions that may satisfy the context description and for checking if the number of context conditions that may satisfy the context description exceeds a limit.

38. The mobile station of claim 37, wherein said generating means further comprises means for rejecting said action and context description pair if said number of context conditions that may be satisfied exceeds said limit.

39. The mobile station of claim 37, wherein said generating means further comprises means for determining the number of users whose context may satisfy the context description in the future.

40. The mobile station of claim 37, wherein said generating means further comprises means for determining the number of locations that may satisfy the context description in the future.

41. The mobile station of claim 37, wherein said generating means further comprises sending a privacy alert to the user if said limit is not exceeded and said action may implicitly disclose private context information if executed.

42. The mobile station of claim 37, wherein said generating means further comprises modifying said context description of said pair if said limit is not exceeded to expand the number of context conditions which satisfy the context description.

43. The mobile station of claim 37, wherein said generating means further comprises generating additional context descriptions for said action so that said pair is associated with a larger number of context conditions and

thereby masking an originally requested action and context description pair.

44. The mobile station of claim 37, further comprising a selector to select the action associated with said action and context description pair from the group consisting of delivering content to a user, making a call, sending a short message, executing a program, executing a program, executing a script, starting a tracking activity, retrieving a web page, posting to a URL, downloading a program, downloading a script, downloading parameters, and downloading arguments for a program.

45. The mobile station of claim 37, wherein said mobile station further comprises obtaining user consent for the action associated with said action and context description pair.

46. The mobile station of claim 37, wherein said mobile station further comprises informing the user of the action associated with said action and context description pair when it is performed.

47. The mobile station of claim 37, wherein the context description associated with said action and context description pair includes a description of a condition

characteristic selected from the group consisting of a location, geographical area, time, date, schedule, usage mode, mobile state, mobile status, signal conditions, processor load, memory availability, proximity to a location, speed, direction of travel, usage history, user profile, a status of another user terminal, and a current context of another user terminal.

48. The mobile station of claim 37, wherein said mobile station further comprises a monitor for monitoring said mobile station's current context with respect to the context description associated with said action and context description pair and executing said action upon detecting that the current context of said mobile station satisfies said context description.

49. The mobile station of claim 48, wherein said monitor further comprises checking context conditions when an event selected from the group consisting of periodically, upon detecting a current context change, and upon user initiated action, occurs.

50. The mobile station of claim 37, further comprising a distributor sends said action and context description pair to a plurality of mobile stations.

51. The mobile station of claim 37, wherein the context description associated with said action and context description pair is implemented in the form selected from the group consisting of a program, a script, and a parametric description.

52. A server for processing of a plurality of action and context description pairs, in a wireless telecommunications network, comprising:

a memory which stores the plurality of action and context description pairs; and

a processor for determining the number of context conditions that may satisfy the context description and for checking if the number of context conditions that may satisfy the context description exceeds a limit.

53. The server of claim 52, further comprising a monitor which determines when the context description portion of one of the plurality of action and context descriptor pairs is satisfied and subsequently performs the corresponding action.

54. The server of claim 52, further comprising a receiver to receive requests to deliver context-based content and instructions.

55. The server of claim 52, further comprising a distributor to send said action and context description pairs to a plurality of mobile stations.

56. The server of claim 52, wherein said processor further comprises means for rejecting said action and context description pair if said limit is not exceeded and otherwise accepting said action and context description pair.

57. The server of claim 52, wherein said processor further comprises means for determining the number of context conditions that may satisfy a context description includes determining the number of users whose context may satisfy the context description in the future.

58. The server of claim 52, wherein said processor further comprises means for determining the number of context conditions that may satisfy a context description includes determining the number of locations that may satisfy the context description in the future.

59. The server of claim 52, wherein said processor further comprises means for sending a privacy alert to the user if said limit is not exceeded and said action may implicitly disclose private context information if executed.

60. The server of claim 52, wherein said processor further comprises means for modifying said context description of said pair if said limit is not exceeded to expand the number of context conditions which satisfy the context description.

61. The server of claim 52, wherein said processor further comprises means for generating additional context descriptions for said action so that said pair is associated with a larger number of context conditions and thereby masking an originally requested action and context description pair.

62. The server of claim 52, wherein the action associated with said action and context description pair is selected from the group consisting of delivering content to a user, making a call, sending a short message, executing a program, executing a program, executing a script, starting a tracking activity, retrieving a web page, posting to a URL, downloading a program, downloading a script, downloading parameters, and downloading arguments for a program.

63. The server of claim 52, wherein the context description associated with said action and context description pair includes a description of a condition characteristic selected from the group consisting of a location, geographical area, time, date, schedule, usage mode,

mobile state, mobile status, signal conditions, processor load, memory availability, proximity to a location, speed, direction of travel, usage history, user profile, a status of another user terminal, and a current context of another user terminal.

64. The server of claim 53, wherein said monitor executes when an event selected from the group consisting of periodically, upon detecting a current context change, and upon user initiated action, occurs.

65. The server of claim 52, wherein the context description associated with said action and context description pair is implemented in the form selected from the group consisting of a program, a script, and a parametric description.

66. A system for distribution of an action and context description pair to control disclosure of private information due to executing said action, comprising:

a server to monitor the generation of said action and context description pair, to search for context conditions that satisfy the context description, to count the number of context conditions pairs that may satisfy the context description and to check if the number of context conditions that may satisfy the context description exceeds a limit; and

a mobile station including means for receiving said action and context description pair.

67. The system of claim 66, wherein said server further comprises a means for rejecting said action and context description pair if said limit is not exceeded and otherwise accepting said action and context description pair.

68. The system of claim 66, wherein said mobile station further comprises a means for rejecting said action and context description pair if said limit is not exceeded and otherwise accepting said action and context description pair.

69. The system of claim 66, wherein said server further comprises a means for determining the number of context conditions that may satisfy a context description includes determining the number of users whose context may satisfy the context description in the future.

70. The system of claim 66, wherein said server further comprises a means of determining the number of context conditions that may satisfy a context description includes determining the number of locations that may satisfy the context description in the future.

71. The system of claim 66, wherein said server further comprises a means to send a privacy alert to the user if said

limit is not exceeded and said action may implicitly disclose private context information if executed.

72. The system of claim 66, wherein said server further comprises a control to modify said context description of said pair if said limit is not exceeded to expand the number of context conditions which satisfy the context description.

73. The system of claim 66, wherein said server further comprises a processor to generate additional context descriptions for said action so that said pair is associated with a larger number of context conditions and thereby masking an originally requested action and context description pair.

74. The system of claim 66, wherein the action associated with said action and context description pair is selected from the group consisting of delivering content to a user, making a call, sending a short message, executing a program, executing a program, executing a script, starting a tracking activity, retrieving a web page, posting to a URL, downloading a program, downloading a script, downloading parameters, and downloading arguments for a program.

75. The system of claim 66, wherein the mobile station further comprises a processor to execute the action associated

with said action and context description pair with user consent.

76. The system of claim 66, wherein the mobile station further comprises a processor to execute the action associated with said action and context description pair without user consent.

77. The system of claim 66, wherein the mobile station further comprises a processor to execute the action associated with said action and context description pair is performed with user knowledge.

78. The system of claim 66, wherein the mobile station further comprises a processor to execute the action associated with said action and context description pair is performed without user knowledge.

79. The system of claim 66, wherein the context description associated with said action and context description pair includes a description of a condition characteristic selected from the group consisting of a location, geographical area, time, date, schedule, usage mode, mobile state, mobile status, signal conditions, processor load, memory availability, proximity to a location, speed, direction of travel, usage history, user profile, a status of

another user terminal, and a current context of another user terminal.

80. The system of claim 66, wherein said mobile station further comprises a monitor to monitor said mobile station's current context with respect to the context description associated with said action and context description pair and executing said action upon detecting that the current context of said mobile station satisfies said context description.

81. The system of claim 80, wherein said monitor further executes said action when an event selected from the group consisting of periodically, upon detecting a current context change, and upon user initiated action, occurs.

82. The system of claim 66, wherein said server further comprises a distributor to send said action and context description pair to a plurality of mobile stations.

83. The system of claim 66, wherein the context description associated with said action and context description pair is implemented in the form selected from the group consisting of a program, a script, and a parametric description.